

**EINGEGANGEN**

20. Juli 2006

**Erl. AB PCT**

NOTIFICATION OF TRANSMITTAL  
OF COPIES OF TRANSLATION  
OF THE INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY  
(CHAPTER I OR CHAPTER II)  
OF THE PATENT COOPERATION TREATY)  
(PCT Rules 44bis.3(c) and 72.2)

From the INTERNATIONAL BUREAU

To:

TER SMITTEN, Hans  
Alfred-Pierburg-Strasse 1  
41460 Neuss  
ALLEMAGNE

|  |  |
|--|--|
| Date of mailing ( <i>day/month/year</i> )<br>13 July 2006 (13.07.2006) |  |
| Applicant's or agent's file reference<br>A.PI.0324.WO                  | <b>IMPORTANT NOTIFICATION</b>  |
| International application No.<br>PCT/EP2004/009425                     | International filing date ( <i>day/month/year</i> )<br>24 August 2004 (24.08.2004) |
| Applicant<br>PIERBURG GMBH et al                                       |  |

**1. Transmittal of the translation to the applicant.**

The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter I).

The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter II).

**2. Transmittal of the copy of the translation to the designated or elected Offices.**

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following designated or elected Offices requiring such translation:

None

The following designated or elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

AE, AG, AL, AM, AP, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EA, EC, EE, EG, EP, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OA, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

**3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).**

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability (Chapter II).

**It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned within the applicable time limit (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.**

|   |                                       |
|---|---------------------------------------|
| The International Bureau of WIPO<br>34, chemin des Colombettes<br>1211 Geneva 20, Switzerland | Authorized officer<br><br>Ellen Moyse |
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# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

|  |  |   |                  |
|--|--|---|------------------|
| Applicant's or agent's file reference<br>A.PI.0324.WO  | <b>FOR FURTHER ACTION</b>  |   | See item 4 below |
| International application No.<br>PCT/EP2004/009425   | International filing date ( <i>day/month/year</i> )<br>24 August 2004 (24.08.2004) | Priority date ( <i>day/month/year</i> )<br>05 September 2003 (05.09.2003) |                  |
| International Patent Classification (8th edition unless older edition indicated)<br>See relevant information in Form PCT/ISA/237 |  |   |                  |
| Applicant<br>PIERBURG GMBH   |  |   |                  |

|   |              |   |           |                     |                                     |            |          |                          |             |  |                          |            |                            |                                     |           |   |                          |            |                         |                          |             |  |                          |              |   |
|---|--------------|---|-----------|---------------------|-------------------------------------|------------|----------|--------------------------|-------------|--|--------------------------|------------|----------------------------|-------------------------------------|-----------|---|--------------------------|------------|-------------------------|--------------------------|-------------|--|--------------------------|--------------|---|
| <p>1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).</p> <p>2. This REPORT consists of a total of 7 sheets, including this cover sheet.</p> <p>In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.</p>   |              |   |           |                     |                                     |            |          |                          |             |  |                          |            |                            |                                     |           |   |                          |            |                         |                          |             |  |                          |              |   |
| <p>3. This report contains indications relating to the following items:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;"><input checked="" type="checkbox"/></td> <td style="width: 15%;">Box No. I</td> <td>Basis of the report</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table> <p>4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis.2).</p> |              | <input checked="" type="checkbox"/>   | Box No. I | Basis of the report | <input checked="" type="checkbox"/> | Box No. II | Priority | <input type="checkbox"/> | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability | <input type="checkbox"/> | Box No. IV | Lack of unity of invention | <input checked="" type="checkbox"/> | Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement | <input type="checkbox"/> | Box No. VI | Certain documents cited | <input type="checkbox"/> | Box No. VII | Certain defects in the international application | <input type="checkbox"/> | Box No. VIII | Certain observations on the international application |
| <input checked="" type="checkbox"/>   | Box No. I    | Basis of the report   |           |                     |                                     |            |          |                          |             |  |                          |            |                            |                                     |           |   |                          |            |                         |                          |             |  |                          |              |   |
| <input checked="" type="checkbox"/>   | Box No. II   | Priority  |           |                     |                                     |            |          |                          |             |  |                          |            |                            |                                     |           |   |                          |            |                         |                          |             |  |                          |              |   |
| <input type="checkbox"/>  | Box No. III  | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability  |           |                     |                                     |            |          |                          |             |  |                          |            |                            |                                     |           |   |                          |            |                         |                          |             |  |                          |              |   |
| <input type="checkbox"/>  | Box No. IV   | Lack of unity of invention  |           |                     |                                     |            |          |                          |             |  |                          |            |                            |                                     |           |   |                          |            |                         |                          |             |  |                          |              |   |
| <input checked="" type="checkbox"/>   | Box No. V    | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |           |                     |                                     |            |          |                          |             |  |                          |            |                            |                                     |           |   |                          |            |                         |                          |             |  |                          |              |   |
| <input type="checkbox"/>  | Box No. VI   | Certain documents cited   |           |                     |                                     |            |          |                          |             |  |                          |            |                            |                                     |           |   |                          |            |                         |                          |             |  |                          |              |   |
| <input type="checkbox"/>  | Box No. VII  | Certain defects in the international application  |           |                     |                                     |            |          |                          |             |  |                          |            |                            |                                     |           |   |                          |            |                         |                          |             |  |                          |              |   |
| <input type="checkbox"/>  | Box No. VIII | Certain observations on the international application   |           |                     |                                     |            |          |                          |             |  |                          |            |                            |                                     |           |   |                          |            |                         |                          |             |  |                          |              |   |

|   |   |
|---|---|
| Date of issuance of this report<br>03 July 2006 (03.07.2006)  |   |
| The International Bureau of WIPO<br>34, chemin des Colombettes<br>1211 Geneva 20, Switzerland<br><br>Facsimile No. +41 22 338 82 70 | Authorized officer<br><br><b>Ellen Moyse</b><br>e-mail: pt05@wipo.int |

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

To:

**PCT**

*Translation*

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

|   |   |  |
|---|---|--|
| Applicant's or agent's file reference<br><b>A.PI.0324.WO</b>  |   | Date of mailing<br>(day/month/year)<br><br><b>See form PCT/ISA/210</b> |
| <b>FOR FURTHER ACTION</b><br>See paragraph 2 below  |   |  |
| International application No.<br><b>PCT/EP2004/009425</b>   | International filing date (day/month/year)<br><b>24.08.2004</b> | Priority date (day/month/year)<br><b>05.09.2003</b>                    |
| International Patent Classification (IPC) or both national classification and IPC<br><b>F16K31/53, F16K1/22, F16K31/04, F02D11/10</b> |   |  |
| Applicant<br><b>PIERBURG GMBH</b>   |   |  |

1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

|  |                    |
|--|--------------------|
| Name and mailing address of the ISA/IPEA | Authorized officer |
| Facsimile No.                            | Telephone No.      |

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/009425

Box No. I Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.  
 This opinion has been established on the basis of a translation from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material  
 a sequence listing  
 table(s) related to the sequence listing
  - b. format of material  
 in written format  
 in computer readable form
  - c. time of filing/furnishing  
 contained in the international application as filed.  
 filed together with the international application in computer readable form.  
 furnished subsequently to this Authority for the purposes of search.
3.  In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

|                               |
|-------------------------------|
| International application No. |
| PCT/EP2004/009425             |

**Box No. II Priority**

1.  The following document has not yet been furnished:

copy of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(a)).  
 translation of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2.  This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43bis.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

|                               |                   |
|-------------------------------|-------------------|
| International application No. | PCT/EP2004/009425 |
|-------------------------------|-------------------|

|   |        |             |        |      |     |  |        |  |    |                     |        |      |     |  |        |  |    |                               |        |      |     |  |        |  |    |
|---|--------|-------------|--------|------|-----|--|--------|--|----|---------------------|--------|------|-----|--|--------|--|----|-------------------------------|--------|------|-----|--|--------|--|----|
| <b>Box No. V</b> <b>Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</b>  |        |             |        |      |     |  |        |  |    |                     |        |      |     |  |        |  |    |                               |        |      |     |  |        |  |    |
| <p><b>1. Statement</b></p> <table> <tr> <td>Novelty (N)</td> <td>Claims</td> <td>1-14</td> <td>YES</td> </tr> <tr> <td></td> <td>Claims</td> <td></td> <td>NO</td> </tr> <tr> <td>Inventive step (IS)</td> <td>Claims</td> <td>1-14</td> <td>YES</td> </tr> <tr> <td></td> <td>Claims</td> <td></td> <td>NO</td> </tr> <tr> <td>Industrial applicability (IA)</td> <td>Claims</td> <td>1-14</td> <td>YES</td> </tr> <tr> <td></td> <td>Claims</td> <td></td> <td>NO</td> </tr> </table>   |        | Novelty (N) | Claims | 1-14 | YES |  | Claims |  | NO | Inventive step (IS) | Claims | 1-14 | YES |  | Claims |  | NO | Industrial applicability (IA) | Claims | 1-14 | YES |  | Claims |  | NO |
| Novelty (N)   | Claims | 1-14        | YES    |      |     |  |        |  |    |                     |        |      |     |  |        |  |    |                               |        |      |     |  |        |  |    |
|   | Claims |             | NO     |      |     |  |        |  |    |                     |        |      |     |  |        |  |    |                               |        |      |     |  |        |  |    |
| Inventive step (IS)   | Claims | 1-14        | YES    |      |     |  |        |  |    |                     |        |      |     |  |        |  |    |                               |        |      |     |  |        |  |    |
|   | Claims |             | NO     |      |     |  |        |  |    |                     |        |      |     |  |        |  |    |                               |        |      |     |  |        |  |    |
| Industrial applicability (IA)   | Claims | 1-14        | YES    |      |     |  |        |  |    |                     |        |      |     |  |        |  |    |                               |        |      |     |  |        |  |    |
|   | Claims |             | NO     |      |     |  |        |  |    |                     |        |      |     |  |        |  |    |                               |        |      |     |  |        |  |    |
| <p><b>2. Citations and explanations:</b></p> <p>1 This opinion makes reference to the following documents:</p> <p>D1: DE 100 48 937 A (BOSCH GMBH ROBERT) 11 April 2002 (2002-04-11)</p> <p>D2: DE 198 25 727 A (MANNESMANN VDO AG) 16 December 1999 (1999-12-16)</p> <p>D3: US 6 581 569 B1 (ARSIC MIRKO ET AL) 24 June 2003 (2003-06-24)</p> <p>D4: US 5 141 070 A (HICKMANN GERD ET AL) 25 August 1992 (1992-08-25)</p> <p>D5: US 4 969 437 A (KOLB HARMUT) 13 November 1990 (1990-11-13)</p> <p>2 INDEPENDENT CLAIM 1</p> <p>2.1 D1 (see column 2, line 36 - column 3, line 57, figures 1, 2) is considered the closest prior art. It discloses (the references between parentheses relate to said document):</p> <p>A flap actuating device, in particular a throttle flap actuating device for internal combustion engines, having a flap body (11) which has a flap (13) which is connected to a flap shaft (14), by</p> |        |             |        |      |     |  |        |  |    |                     |        |      |     |  |        |  |    |                               |        |      |     |  |        |  |    |

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.  
PCT/EP2004/009425

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

means of which the flap (13) is rotatably mounted, at at least one side, in the flap body (11), and having a drive unit (12) which has at least one electric motor and one step-down gearing (see description) for driving the flap (13) and a sensor (see description) for position feedback of the flap position, at least the gearing being arranged in a housing (15) which has a contact plate (see figure 1), which is fastened to the flap body (11), and a cover (12) which closes off the housing (15),

2.2 from which the subject matter of independent claim 1 differs in that:

the electric motor (7) is arranged outside the housing (9) and the flap body (2), the electric motor (7) being open at one side and via a pole tube (16), whose first end (17), which is placed on a driveshaft (14) of the electric motor (7), is plugged onto a substantially annular axially running shoulder (20) of the contact plate (10), as a result of which the open end (17) of which pole tube (16) can be closed off and the second, closed end (18) of which pole tube (16) is arranged at least indirectly in a bearing block (26) of the flap body (2), the driveshaft (14) of the electric motor (7) being mounted at one side in the contact plate (10) and at the other side in a mounting point (19) at the closed end (18) of the pole tube (16), and the pole tube (16) simultaneously serving as a housing of the electric motor (7).

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/009425

|           |  |
|-----------|--|
| Box No. V | Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
|-----------|--|

2.3 The subject matter of claim 1 is therefore novel, (PCT Article 33(2)).

The problem addressed by the present invention can therefore be considered that of constructing a flap actuating device in a modular fashion and of modifiable individual parts of the device being easily accessible.

3 DEPENDENT CLAIMS 2 - 14

3.1 Claims 2 - 14 are dependent on claim 1 and therefore likewise meet the PCT requirements for novelty and inventive step.